

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A valve system assembly for use in a well, comprising:

a tubing through which a wellbore fluid is produced;

a valve member coupled to the tubing, the valve member defining a plurality of fluid inlet orifices each fluid inlet orifice having a predetermined flow area, the sum of the predetermined flow areas being at least equal to the flow area of the tubing; and

a sleeve axially moveable to selectively permit and prevent flow of fluid through selected fluid inlet orifices of the plurality of fluid inlet orifices.

2. (Currently amended) The valve system assembly as recited in claim 1, further comprising:

a sealing member disposed between the valve member and the sleeve, wherein the plurality of fluid inlet orifices are spaced axially along the valve member; ~~the sleeve being selectively moveable to a plurality of defined positions; further wherein at each of the plurality of defined positions the sealing member is positioned at a location between adjacent fluid inlet orifices.~~

3. (Currently amended) The valve system assembly as recited in claim 1, wherein the sealing member comprises a deformable seal between a valve seat and the valve member.

4. (Currently amended) The valve system assembly as recited in claim 3, wherein the deformable seal comprises PEEK.

5. (Currently amended) The valve system assembly as recited in claim 1, wherein the sealing member comprises a sliding seal between the valve member and the sleeve.

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Currently amended) The valve system assembly as recited in claim 1, further comprising:

an orifice insert positioned in the at least one fluid inlet orifice, the orifice insert having a passageway therethrough.

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Currently amended) A valve assembly for use in a well, comprising:

an outer housing;

an inner housing movable with respect to the outer housing and disposed within the outer housing, the inner housing having a hollow interior, and one of the outer housing and the inner housing having a plurality of radial flow passages; and

a sealing device disposed between the inner housing and the outer housing, the sealing device having a primary seat and a secondary seat, at least one of the primary seat and the secondary seat being formed of a harder material than the other

~~wherein the outer housing and the inner housing may be axially moved relative to each other to expose selected configurations of the radial flow passages to control fluid flow therethrough without directly exposing the sealing device to the fluid flow.~~

15. (Canceled)

16. (Canceled)

17. (Original) The valve assembly as recited in claim 14, wherein the sealing device comprises a sliding seal.

18. (Original) The valve assembly as recited in claim 17, wherein the sliding seal comprises a valve seat, the valve seat comprising a material from a group consisting of polycrystalline diamond, vapor deposition diamond, ceramic, hardened steel, tungsten carbide and carbide.

19. (Currently amended) The valve assembly as recited in claim 14, wherein at least one of the primary seat and the secondary seat is formed of a deformable material ~~18, further comprising a deformable seal disposed between the inner housing and the outer housing.~~

20. (Currently amended) The valve assembly as recited in claim 19, wherein the deformable material ~~seal~~ comprises PEEK.

21. (Currently amended) The valve assembly as recited in claim 17, wherein at least one of the primary seat and the secondary seat has ~~further comprising a valve seat having a~~ hardness of at least 1,200 knoops.

22. (Currently amended) The valve assembly as recited in claim 14, further comprising:

an orifice insert disposed within at least one of the radial flow passages ~~opening through which fluid flows~~, the orifice insert having a passageway therethrough.

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Canceled)

38. (Currently amended) A system for controlling fluid flow from a wellbore, comprising:

a valve assembly having:

a valve member defining a plurality of fluid inlet orifices;

a sleeve moveable to permit and prevent flow of fluid through selected ones of the plurality of fluid inlet orifices; and

a sliding seal positioned to form a seal with the sleeve;

a drive mechanism operable to move position the sleeve to a plurality of positions relative to the valve, each position being predetermined so the sliding seal does not overlap any of the plurality of fluid inlet orifices; and

tubing fluidicly coupled to the valve assembly for conveying fluid to a surface location.

39. (Original) The system as recited in claim 38, comprising a protective insert disposed within a fluid inlet orifice.

40. (Currently amended) The system as recited in claim 38, further comprising a sealing member disposed between the valve member and the sleeve, wherein the plurality of fluid inlet orifices are spaced axially along the valve member, ~~the sleeve being selectively moveable to a plurality of defined positions, further wherein at each of the plurality of defined positions the sealing member forms a seal at a location between adjacent fluid inlet orifices.~~

41. (Original) The system as recited in claim 38, wherein the valve assembly is configured to form a seal generally at a midpoint between adjacent fluid inlet orifices.

42. (Original) The system as recited in claim 41, wherein the adjacent fluid inlet orifices are spaced axially to minimize flow damage to the seal.

43. (Original) The system as recited in claim 38, wherein the drive mechanism is controlled by hydraulic pressure.

44. (Original) The system as recited in claim 38, wherein each fluid inlet orifice is generally circular.

45. (Original) The system as recited in claim 39, wherein a protective insert is configured with a material having a hardness of at least 1,200 knoops.

46. (Original) The system as recited in claim 39, wherein a protective insert comprises tungsten carbide.

47. (Original) The system as recited in claim 39, wherein a fluid inlet orifice is configured with a layer of material having a hardness of 1,200 knoops.

48. (Original) The system as recited in claim 39, wherein a fluid inlet orifice is configured with a layer of tungsten carbide.

49. (Currently amended) A valve system assembly for controlling fluid flow, comprising:

a plurality of valve assemblies, each valve assembly comprising

a valve member defining a plurality of fluid inlet orifices; and

a sleeve axially moveable to selectively permit and prevent flow of fluid through selected fluid inlet orifices of the plurality of fluid inlet orifices,

wherein each sleeve is independently controlled to enable independent selection of flow through each valve assembly

~~housing having at least one inlet orifice; and~~

~~a protective insert disposed in the at least one inlet orifice to protect the at least one inlet orifice from erosion.~~

50. (Currently amended) The valve system assembly as recited in claim 49, further comprising protective inserts disposed in the plurality of fluid inlet orifices, wherein each the protective insert comprises an erosion-resistant material.

51. (Currently amended) The valve system assembly as recited in claim 50 49, wherein each the protective insert comprises a layer of erosion-resistant material.

52. (Currently amended) The valve system ~~device~~ as recited in claim 50 49, wherein the erosion resistant material comprises tungsten carbide.

53. (Currently amended) The valve system ~~device~~ as recited in claim 50 49, wherein the erosion resistant material comprises a material having a hardness of 1,200 knoops.